



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## THE BOTANY OF THE NEW ENGLAND POETS

By DR. NEIL E. STEVENS

BUREAU OF PLANT INDUSTRY

MODERN New England poets are necessarily excluded from this discussion. What Amy Lowell writes may be poetry, but her references to plants are certainly not botany. Adequate and appropriate tribute<sup>1</sup> has moreover been paid to her masterly ignorance of things botanical as displayed in a *vers libre* effusion on sugar printed in *The Independent* (December 29, 1917) in which the familiar red table beet is forced to assume the chemical and horticultural rôle of the coarse, whitish, turnip-like root known commercially as the sugar beet. To quote in part:

Wide plains,  
 With little red balls hidden under them,  
 Beets like a hidden pavement underneath the plains.  
 A Roman floor forsooth!  
 Do mosaics have any color to equal these?  
 Red as the eyes of cats in firelight,  
 As carbuncles under a lemon moon,  
 As the sun swirling out of a foggy sky,  
 Round as apples,  
 Footed as tops,  
 You spin yourself deep into the earth  
 And swell and fatten,  
 Sugar in a crimson coat,  
 . . . . .  
 And there still the blood-skinned beets,  
 Waiting to be crushed, pulped, and eaten,  
 Thunder sugar—blood sugar—

In contrast, attention will be confined to the New England poets in the most limited sense, that is to the poets of that little group, the most distinguished in American letters, usually known as the Cambridge School, namely, Longfellow, Whittier, Holmes, and Lowell. It is perhaps more than a coincidence that these men were the contemporaries and most of them the friends of that master mind of New England botany, Asa Gray.<sup>2</sup> Indeed it was of Gray that Lowell wrote:

Just Fate, prolong his life well-spent  
 Whose indefatigable hours  
 Have been as gaily innocent  
 And fragrant as his flowers.<sup>3</sup>

<sup>1</sup>Broadhurst, Jean. Botanical Errors of some well-known writers. Torrey, p. 118, 1918.

<sup>2</sup>Gray 1810-1888. Whittier 1807-1893. Lowell 1819-1891.  
 Longfellow 1807-1882. Holmes 1809-1894.

<sup>3</sup>The occasion was Professor Gray's seventy-fifth birthday. A silver memorial vase inscribed with the legend,

Bryant's birth and early life in the Berkshires place him among the New England poets though not in the Cambridge school, and his reputation as a nature poet might indicate that he would be entitled to special botanical consideration. In only a few of his poems, however, does one find evidence of accurate botanical knowledge. "The Death of the Flowers," "The Old Man's Council," "The Fountain," and "To the Fringed Gentian," though, show his interest in and love for flowers.

Emerson, although not primarily a poet, belongs of course to the Cambridge school, and there is evidence of considerable botanical knowledge in his poems. In "Nature" for example he names over forty species of plants. If, however, Emerson had been a botanist, and he would have made a very good one, he would not have been a systematist. In 1858 few botanists even took the trouble to record the size of the trees they mentioned, as he does in "The Adirondacs"

Our patron pine was fifteen feet in girth,  
The maple eight, beneath its shapely tower.

Nor is there to be found in all the good natured abuse showered upon the systematists by physiologists, ecologists and plant breeders during the last ten years anything more caustic, than Emerson's comment in "Blight"

But these young scholars, who invade our hills,  
Love not the flower they pluck, and know it not,  
And all their botany is Latin names.

In Longfellow's poems there are to be found, of course, fine lines which express realization of the beauty of field and forest, and there is evidence of some botanical knowledge. No careful reader of his poetry will, however, maintain that Longfellow appreciated plants or plant life as he did the ocean, or even inland bodies of water. Some explanation of this may perhaps be found in the surroundings of his youth. Born within sight of the sea and his boyhood spent in a seaport town, it is natural that the ocean should have left an impression on his mind unequalled by other natural objects. Indeed in "My Lost Youth" the first five stanzas deal chiefly with the sea and the harbor including:

I remember the black wharves and the slips,  
And the sea-tides tossing free;  
And the Spanish sailors with bearded lips,  
And the beauty and mystery of the ships,  
And the magic of the sea.

Whereas the only references to things botanical are to the trees that

---

"1810 November eighteenth 1885

Asa Gray

in token of the universal esteem of American botanists"

was presented to Professor Gray accompanied by the lines quoted above and by greetings from 180 American botanists. See Jordan, David Starr, *Leading American Men of Science*. New York. 1910. Asa Gray, Botanist; by John M. Coulter, p. 211-231.

line the streets, and to Deering's Woods, a grove in the outskirts of Portland.

Whittier, most of whose early life was spent on a farm, knew the names of a good many plants, but even when he mentions them it is usually in their relation to human life or as symbolic of human activity. On receiving a sprig of heather in blossom, he writes a poem for "Burns" and in writing of "The Sycamores" his thoughts are very little with the trees but chiefly of the Irishman, Hugh Tallant, who planted them. The trailing arbutus moves him to two poems; but one "The Mayflowers," deals chiefly with the Pilgrims, and a shorter one "The Trailing Arbutus" ends thus

As, pausing, o'er the lonely flower I bent,  
I thought of lives thus lowly, clogged and pent,  
Which yet find room,  
Through care and cumber, coldness and decay,  
To lend a sweetness to the ungenial day,  
And make the sad earth happier for their bloom.

It is the labor of the farm, rather than the wild life of the farm, that appeals to Whittier (see his "Songs of Labor"); and one is led to the belief that a very real interest in the man who works with his hands, as well as his creed as a Friend, inspired him in his long fight against slavery.

Even as a boy, however, Whittier apparently showed no special interest in plants. In fact, it would seem that such biological inclinations as he possessed were zoological rather than botanical. If one examines "The Barefoot Boy's" stock of nature lore

Knowledge never learned of schools,  
Of the wild bee's morning chase,  
Of the wild-flower's time and place,  
Flight of fowl and habitude  
Of the tenants of the wood;  
How the tortoise bears his shell,  
How the woodchuck digs his cell,  
And the ground-mole sinks his well;  
How the robin feeds her young,  
How the oriole's nest is hung;  
Where the whitest lilies blow,  
Where the freshest berries grow,  
Where the groundnut trails its vine,  
Where the wood-grape's clusters shine;  
Of the black wasp's cunning way,  
Mason of his walls of clay,  
And the architectural plans  
Of gray hornet artisans!—

he will come to the conclusion that this particular boy was much more interested in animals than in plants. For against a very creditable list of items of information regarding quadrupeds, birds, and insects are balanced only one generalization about flowers, and three plants regarded as sources of food. Indeed, for a poet, and a life long member of the Society of Friends, Whittier betrays an almost surprising

interest in gastronomic pleasures. He exclaims with many another New Englander (The Pumpkin)

What moistens the lip and what brightens the eye?  
What calls back the past, like the rich Pumpkin pie?

Holmes' medical training gave him a knowledge of drug plants, which he uses to good advantage in a professional poem "Rip Van Winkle, M. D." Holmes seems to have had, moreover, a special interest in and affection for trees, references to them occur again and again in his poems. That this interest dates from his boyhood is evidenced by a poem "The Meeting of the Dryads" written after a general pruning of the trees around Harvard College, some time before he was sixteen. With real feeling the spirit of one of the mutilated trees speaks

Go on, Fair Science; soon to thee  
Shall Nature yield her idle boast;  
Her vulgar fingers formed a tree,  
But thou hast trained it to a post.

and the poem concludes with the following inclusive curse upon the "tree surgeon" of Harvard

A curse upon the wretch who dared  
To crop us with his felon saw!  
May every fruit his lip shall taste  
Lie like a bullet in his maw.

May nightshade cluster round his path,  
And thistles shoot, and brambles cling;  
May blistering ivy scorch his veins,  
And dogwood burn, and nettles sting.  
On him may never shadow fall,  
When fever racks his throbbing brow,  
And his last shilling buy a rope  
To hang him on my highest bough!

Holmes most frequently uses botanical information in figures, and his botanical figures are usually apt. The rose, the lily and the peach have been so much used, and abused by poets in their attempts to do justice to feminine beauty that Holmes' courageous use (in *The Autocrat at the Breakfast Table*) of the more beautiful but less conspicuous cranberry blossom deserves special mention

My lady's cheek can boast no more  
The cranberry white and pink it wore.

With a vigor equaled only by the preacher's "of making many books there is no end; and much study is a weariness of the flesh" he sums up the passion for publication, chiefly in botanical figures, in *Cacoethes Scribendi*

If all the trees in all the woods were men;  
And each and every blade of grass a pen;  
If every leaf on every shrub and tree  
Turned to a sheet of foolscap; every sea

Were changed to ink, and all earth's living tribes  
 Had nothing else to do but act as scribes,  
 And for ten thousand ages, day and night,  
 The human race should write, and write, and write,  
 Till all the pens and paper were used up,  
 And the huge inkstand was an empty cup,  
 Still would the scribblers clustered round its brink  
 Call for more pens, more paper, and more ink.

The poet is honest, however, and owns that he is one of the scribblers, when in one of the "Poems of the Class of '29" he sums up the whole matter,

"Why won't he stop writing!" Humanity cries:  
 The answer is briefly, "He can't if he tries."

Perhaps his best figure, certainly his best known, is a botanical one, "The Last Leaf." It is a curious commentary on the failure of many people to observe the most common natural phenomena that in the latter editions of his poems, Holmes felt obliged to insert in the introduction to the poem bearing the above title an explanation of a relation which should have been obvious to every one who had seen oak trees in New England in early spring. His own fondness for so apt a figure is shown by its repeated use. In 1831 (*The Last Leaf*) he wrote

And if I should live to be  
 The last leaf upon the tree  
 In the spring,  
 Let them smile, as I do now,  
 At the old forsaken bough  
 Where I cling.

Thirty years later he uses the same figure (*The Old Player* 1861)

Yet there he stood,—the man of other days,  
 In the clear present's full, unsparing blaze,  
 As on the oak a faded leaf that clings  
 While a new April spreads its burnished wings.

And in 1889 in acknowledging the gift of a silver loving cup, he wrote (*To The Eleven Ladies*)

"For whom this gift?" For one who all too long  
 Clings to his bough among the groves of song;  
 Autumn's last leaf, that spreads its faded wing  
 To greet a second spring.

Lowell was deeply interested in the turbulent political events of his time and *The Biglow Papers* are the soul of his published work. However, his poems bear evidence of deep interest in and accurate knowledge of natural objects, particularly plants. He does not seem to overstate the case when in "To George William Curtis" he tells of his interest in out of door things and apologizes, almost, for his humanitarian interests:

Dear were my walks, too, gathering fragrant store  
 Of Mother Nature's simple-minded lore:  
 I learned all weather-signs of day or night;  
 No bird but I could name him by his flight,

No distant tree but by his shape was known,  
 Or, near at hand, by leaf or bark alone.  
 This learning won by loving looks I hived  
 As sweeter lore than all from books derived.  
 I know the charm of hillside, field and wood,  
 Of lake and stream, and the sky's downy brood,  
 Of roads sequestered rimmed with fallow sod,  
 But friends with hardhack, aster, golden-rod,<sup>4</sup>  
 Or succory keeping summer long its trust  
 Of heaven-blue fleckless from the eddying dust:  
 These were my earliest friends, and latest too,  
 Still unestranged, whatever fate may do.  
 For years I had these treasures, knew their worth  
 Estate most real man can have on earth  
 I sank too deep in this soft-stuffed repose  
 That hears but rumors of earth's wrongs and woes;  
 Too well these Capuas could my muscles waste,  
 Not void of toils, but toils of choice and taste;  
 These still had kept me could I but have quelled  
 The Puritan drop that in my veins rebelled.

But there were times when silent were my books  
 As jailers are, and gave me sullen looks,  
 When verses palled, and even the woodland path,  
 By innocent contrast, fed my heart with wrath,  
 And I must twist my little gift of words  
 Into a scourge of rough and knotted cords  
 Unmusical, that whistle as they swing  
 To leave on shameless backs their purple sting.

How slow Time comes! Gone, who so swift as he?  
 Add but a year, 'tis half a century  
 Since the slave's stifled moaning broke my sleep,  
 Heard 'gainst my will in that seclusion deep,  
 Haply heard louder for the silence there,  
 And so my fancied safeguard made my snare.

Whatever Lowell's knowledge of botany he certainly understood and appreciated scientists and quite properly places Jonah among them. (The Biglow Papers)

Men in general may be divided into the inquisitive and the communicative. To the first class belong Peeping Toms, eaves-droppers, navel-contemplating Brahmins, metaphysicians, travellers, Empedocleses, spies, the various societies for promoting Rhinothism, Columbuses, Yankees, discoverers, and men of science, who present themselves to the mind as so many marks of interrogation wandering up and down the world, or sitting in studies and laboratories. . . . .

To one or another of these species every human being may safely be referred. I think it beyond a peradventure that Jonah prosecuted some inquiries into the digestive apparatus of whales, and that Noah sealed up a letter in an empty bottle, that news in regard to him might not be wanting in case of the worst. They had else been super or subter human.

<sup>4</sup>For the guidance of those unfamiliar with the common names there are included in several places lists of the plants mentioned with their Latin names as given in Gray's Manual, Seventh Edition. Hardhack, *Spiraea tomentosa* L.; Golden-rod, *Solidago* sp.; Succory, *Cichorium Intybus* L.

## HORTICULTURE

It is difficult to determine just what should be considered as significant horticultural information. Longfellow, for example, in "Catawba Wine" shows that he knew the names at least of several varieties of wine grapes, but such knowledge could of course be acquired, at least before July 1, 1919, without personal study of the vineyard. On the other hand, in "The Birds of Killingworth" he shows that he understands better than many of his successors the close relation between birds, and insects, and the relation of insects to the destruction of crops. Though the great destruction of crops brought about by the increased abundance of insects comes rather suddenly after the death of the birds.

Here should certainly be included, however, an observation made by Lowell in a note introductory to one of the Biglow Papers

The two faculties of speech and of speech-making are wholly diverse in their natures. By the first we make ourselves intelligible, by the last unintelligible, to our fellows. It has not seldom occurred to me (noting how in our national legislature everything runs to talk, as lettuces, if the season or the soil be unpropitious, shoot up lankly to seed, instead of forming handsome heads) that Babel was the first Congress, the earliest mill erected for the manufacture of gabble.

The horticultural significance of this quotation lies of course in the parenthetical observation that under conditions unfavorable for vegetative growth, lettuce like many other vegetables runs to seed.

In these days when grades and standards for packing fruit, and the accurate labeling of foods and drugs are an important part of the activity of a Department of Agriculture it may be interesting to note some of the things Holmes considered "essential to a Millennium"<sup>2</sup> (Latter-Day Warnings)

When legislators keep the law,  
When banks dispense with bolts and locks—  
When berries — whortle, rasp, and straw—  
Grow bigger *downwards* through the box,

When preachers tell us all they think,  
And party leaders all they mean,  
When what we pay for, that we drink,  
From real grape and coffee-bean,

*Till* then let Cumming blaze away,  
And Miller's saints blow up the globe;  
But when you see that blessed day,  
*Then* order your ascension robe!

We are indebted to Whittier's interest in all that pertained to advocates of the abolition of negro slavery, for a poetic record of seed and plant introduction carried on previous to 1700 by Francis Daniel Pastorius,<sup>5</sup> one of the earliest German immigrants to Pennsylvania. According to Whittier a correspondence and exchange of plants was



carried on between Pastorius and his friends and teachers in Germany (The Pennsylvania Pilgrim) :

And thus the Old and New World reached their hands  
 Across the water, and the friendly lands  
 Talked with each other from their severed strands.  
 Pastorius answered all: while seed and root  
 Sent from his new home grew to flower and fruit  
 Along the Rhine and at the Spessart's foot;  
 And, in return, the flowers his boyhood knew  
 Smiled at his door, the same in form and hue,  
 And on his vines the Rhenish clusters grew.

#### MYCOLOGY AND PHYTOPATHOLOGY

In view of the scant consideration given fungi by New England botanists before Farlow, it may be worth mentioning that at least two of the New England poets knew that fungi existed. Holmes mentions fungi frequently. One of his early poems is entitled "The Toadstool" and Emerson refers in "Nature" to

Where the fungus broad and red  
 Lifts its head,  
 Like poisoned loaf of elfin bread.

Moreover, from two chance references I am convinced that Holmes knew, what some botanists had yet to learn, that a lichen is really a fungus. In *Astraea* he contrasts the "arctic fungus" and the desert palm; and in "A modest request" he refers to

—the rock where nature flings  
 Her arctic lichen, last of living things;

Mention of plant diseases are confined chiefly to generalized references to mold, mildew and blight, but in the Biglow Papers there is evidence that Lowell knew Peach Yellows and some of its symptoms.

Take them editors thet's crowin'  
 Like a cockerel three months old,—  
 Don't ketch any on 'em goin',  
 Tho they be so blasted bold;  
 Aint they a prime lot o' fellers?  
 'Fore they think on't guess they'l sprout  
 (Like a peach thet's got the yellers)  
 With the meanness bustin' out.

#### ECOLOGY

In these days when ecology has a society, a special journal, and a special language it would be a presumptuous botanist indeed, who, not one of the elect, should attempt to decide what is ecology and what

<sup>5</sup>Jellett, Edwin C., Germantown Gardens and Gardeners, 1914. On pages 5—16 of this work is given an account of Francis Daniel Pastorius, the founder of Germantown, which indicates that Whittier's account is substantially correct.

is not, and it would be even more presumptuous to suppose that in poets of the last generation one would find today's ecology. But in the old fashioned sense of plant relations, the relations of plants to each other and to their environment we find, in Lowell at least, evidence of real comprehension. Any one who has carefully watched the almost unbelievably rapid development of vegetation during the spring of northern New England, and contrasted it with the abject manner in which spring approaches in southern California will appreciate the feeling and the keen observation evidenced in Lowell's description of spring in the Biglow Papers. Beginning on May Day

I, country-born an' bred, know where to find  
 Some blooms thet make the season suit the mind,  
 An' seem to metch the doubtin' bluebird's notes,—  
 Half-ventrin' liverworts<sup>6</sup> in furry coats,  
 Bloodroots, whose rolled-up leaves ef you oncurl,  
 Each on' em's cradle to a baby-pearl,—  
 But these are jes' Spring's pickets; sure ez sin,  
 The rebbles frosts 'll try to drive 'em in;  
 For half our May's so awfully like May n't,  
 't would rile a Shaker or an evrige saint;  
 Though I own up I like our back'ard springs  
 Thet kind o' haggle with their greens an' things,  
 An' when you 'most give up, 'thout more words  
 Toss the fields full o' blossoms, leaves an' birds:

'fore long the trees begin to show belief,  
 The maple crimsons to a coral-reef,  
 Then saffern swarms swing off from all the willers  
 So plump they look like yaller caterpillars,  
 Then gray hossches' nuts leetle hands unfold  
 Softer'n a baby's be at three days old:

Then seems to come a hitch,—things lag behind,  
 Till some fine mornin' Spring makes up her mind,  
 An' ez, when snow-swelled rivers cresh their dams  
 Heaped-up with ice thet dovetails in an' jams,  
 A leak comes spirtin' through some pin-hole cleft,  
 Grows stronger, fercer, tears out right an' left,  
 Then all the waters bow themselves an' come,  
 Suddin, in one gret slope o' shedderin' foam,  
 Jes' so our Spring gits everythin' in tune  
 An' gives one leap from Aperl into June:  
 Then all comes crowdin' in; afore you think,  
 Young oak-leaves mist the side-hill woods with pink;  
 The catbird in the laylock-bush is loud;  
 The orchards turn to heaps o' rosy cloud;  
 Red-cedars blossom tu, though few folks know it,  
 An' look all dipt in sunshine like a poet;

Not only is the succession of spring flowers correctly observed, and appropriate emphasis given to the rapidity of the development of the vegetation during the latter part of May, but the above quoted poem

<sup>6</sup>Liverwort, *Hepatica triloba* Chaix; Bloodroot, *Sanguinaria canadensis* L.; Maple, Acer, (probably *rubrum* L.); Willers (willow), *Salix* sp.; Hossches' nuts, (Horse-chestnut), *Aesculus Hippocastanum* L.; Oak, *Quercus* sp.; Laylock (lilac), *Syringa vulgaris* L.; Red-cedar, *Juniperus virginiana* L.

is the only record the writer has found of the fact that in New England at least the red-cedar blossoms at the same time as the cultivated apple.

Holmes expressed the idea of the rapid climatic change at this season with equal vigor in an early poem entitled "The Hot Season":

The folks, that on the first of May  
Wore winter coats and hose,  
Began to say, the first of June,  
"Good Lord! how hot it grows!"

So far as vegetation is concerned, however, Holmes' idea of spring includes, as becomes a townsman, chiefly cultivated plants. In three poems (Poetry, Spring, and Spring Has Come) in which the season is described he mentions the snowdrop, the hyacinth, tulip, crocus, iris, narcissus, and peony; but among wild flowers only the violet.

Not less accurate, nor less vivid than his description of spring is Lowell's record of autumn foliage in *An Indian Summer Reverie*. During the four years just passed the writer has spent the fall months in eastern Massachusetts and has been unable to note any error either of time, color, or habit in the various species mentioned in the following quotation:

What visionary tints the year puts on,  
When falling leaves falter through motionless air  
Or numbly cling and shiver to be gone!

The sobered robin, hunger-silent now,  
Seeks cedar-berries<sup>7</sup> blue, his autumn cheer;  
The chipmunk, on the shingly shagbark's bough,

O'er yon bare knoll the pointed cedar shadows  
Drowse on the crisp gray moss; the ploughman's call  
Creeps faint as smoke from black, fresh-furrowed meadows;  
The single crow a single caw lets fall;  
And all around me every bush and tree  
Say Autumn's here, and Winter soon will be,  
Who snows his soft, white sleep and silence over all.

The birch, most shy and ladylike of trees,  
Her poverty, as best she may, retrieves,  
And hints at her foregone gentilities  
With some saved relics of her wealth of leaves;  
The swamp-oak, with his royal purple on,  
Glares red as blood across the sinking sun,  
As one who prouder to a falling fortune cleaves.

He looks a sachem, in red blanket wrapt,  
Who, 'mid some council of the sad-garbed whites,  
Erect and stern, in his own memories lapt,  
With distant eye broods over other sights,  
Sees the hushed wood the city's flare replace,  
The wounded turf heal o'er the railway's trace,  
And roams the savage Past of his undwindled rights.

<sup>7</sup>Cedar, *Juniperus virginiana* L.; Shag-bark *Carpa ovata* (Mill.) K. Koch; Birch, *Betula* (probably here *populifolia* Marsh.); Swamp-oak, *Quercus palustris* Muench.; Red-oak, *Quercus rubra* L.; Chestnut, *Castanea dentata* (Marsh) Borkh.; Ash, *Fraxinus americana* L.; Maple (swamp), *Acer rubrum* L.; Scrub-oak, *Quercus ilicifolia* Warg.; Black-alder, *Ilex verticillata* (L.) Gray; Woodbine, *Psedera quinquefolia* (L.) Greene; Elm, *Ulmus americana* L.; Ivy (poison?), *Rhus Toxicodendron* L.

The red-oak, softer-grained, yields all for lost,  
 And, with his crumpled foliage stiff and dry,  
 After the first betrayal of the frost,  
 Rebuffs the kiss of the relenting sky;  
 The chestnuts, lavish of their long-hid gold,  
 To the faint Summer, beggared now and old,  
 Pour back the sunshine hoarded 'neath her favoring eye.

The ash her purple drops forgivingly  
 And sadly, breaking not the general hush;  
 The maple-swamps glow like a sunset sea,  
 Each leaf a ripple with its separate flush;  
 All round the wood's edge creeps the skirting blaze  
 Of bushes low, as when, on cloudy days,  
 Ere the rain falls, the cautious farmer burns his brush.

O'er yon low wall, which guards one unkempt zone,  
 Where vines, and weeds, and scrub-oaks intertwine  
 Safe from the plough, whose rough, discordant stone  
 Is massed to one soft gray by lichens fine,  
 The tangled blackberry, crossed and recrossed, weaves  
 A prickly network of ensanguined leaves;  
 Hard by, with coral beads, the prim black-alders shine,

Pillaring with flame this crumbling boundary,  
 Whose loose blocks topple 'neath the ploughboy's foot,  
 Who, with each sense shut fast except the eye,  
 Creeps close and scares the jay he hoped to shoot,  
 The woodbine up the elm's straight stem aspires,  
 Coiling it, harmless, with autumnal fires;  
 In the ivy's paler blaze the martyr oak stands mute.

The ecology of today includes, I believe, both animals and plants in the same study. Lowell's description of a New England pool is then both up to date and accurate. (*Festina Lente*):

Once on a time there was a pool  
 Fringed all about with flag-leaves<sup>8</sup> cool  
 And spotted with cow-lilies garnish,  
 Of frogs and pouts the ancient parish.  
 Alders the creaking redwings sink on,  
 Tussocks that house blithe Bob o' Lincoln  
 Hedged round the unassailed seclusion,  
 Where muskrats piled their cells Carthusian;  
 And many a moss-embroidered log,  
 The watering-place of summer frog,  
 Slept and decayed with patient skill,  
 As watering-places sometimes will.

No phenomenon more often interests the botanist in rural New York and New England than the persistence of certain plants about the sites of abandoned homesteads. Holmes records the plants he observed about one such in "The Exile's Secret."

Who sees unmoved, a ruin at his feet,  
 The lowliest home where human hearts have beat?  
 Its hearthstone, shaded with the bistre stain  
 A century's showery torrents wash in vain;  
 Its starving orchard, where the thistle blows  
 And mossy trunks still mark the broken rows;

<sup>8</sup>Flag (Sweet), *Acorus Calamus* L.; Cow-lilies, *Nymphaea advena*, Ait.; Alder, *Alnus rugosa* (Du Roc) Spreng.

Its chimney-loving poplar, oftenest seen  
 Next an old roof, or where a roof has been;  
 Its knot-grass,<sup>9</sup> plantain, —all the social weeds,  
 Man's mute companions, following where he leads;

Its woodbine, creeping where it used to climb;  
 Its roses, breathing of the olden time;

Whether the original inhabitant of this "Island Ruin" was so unconventional as not to have had a lilac, or the lilac was unable to persist in so exposed a place cannot, of course, be determined. But it is hardly to be supposed that Holmes could have missed what is usually the most conspicuous of the relics. Whittier reports it in a similar situation (The Homestead)

A lilac spray, once blossom clad,  
 Sways bare before the empty rooms;  
 Beside the roofless porch a sad  
 Pathetic red rose blooms.

#### WOOD TECHNOLOGY

Holmes is probably supreme in this field although the landlord in Longfellow's "Tales of A Wayside Inn" knows the fuel value of Oak, Maple and Apple, and in "Hiawatha" the canoe is built from appropriate and serviceable materials. In "Poetry" Holmes shows that he knows some of the penalties for using green wood for construction purposes, and it is no poetic license, but accurate observation of natural phenomena that records the sprouting from the unhewn timbers on the shady, and moister, side.

Scarce steal the winds, that sweep his woodland tracts,  
 The larch's<sup>10</sup> perfume from the settler's axe,  
 Ere, like a vision of the morning air,  
 His slight framed steeple marks the house of prayer;  
 Its planks all reeking and its paint undried,  
 Its rafters sprouting on the shady side,

Likewise the Deacon in building his now famous "One-hoss shay" uses, according to Holmes' record, the best of materials and judgment. He

inquired of the village folk<sup>11</sup>  
 Where he could find the strongest oak,  
 That couldn't be split nor bent nor broke,—  
 That was for spokes and floor and sills;  
 He sent for lancewood to make the thills;  
 The crossbars were ash, from the straightest trees,  
 The panels of white-wood, that cuts like cheese,  
 But lasts like iron for things like these;  
 The hubs of logs from the "Settler's ellum,"—  
 Last of its timber,—they couldn't sell 'em,  
 Never an axe had seen their chips,  
 And the wedges flew from between their lips,  
 Their blunt ends frizzled like celery-tips;

<sup>9</sup>Knot-grass (Knotweed), *Polygonum sp.*; Plantain, *Plantago major*, L.

<sup>10</sup>Larch, *Larix laricina* (Du Roi) Koch.

<sup>11</sup>The only mention of the botanical significance of this poem which the

Careful review of the woods used, in the light of the information now available, leads one to believe that when combined with "Steel of the finest, bright and blue" they would go far to make good the Deacon's vow that

He would build one shay to beat the taown  
'N' the keounty 'n' all the kentry raoun';  
It should be so built that it could n' break daown;  
"Fur," said the Deacon, "'t's mighty plain  
That the weakes' place mus' stand the strain;  
'N' the way t' fix it, uz I maintain,  
Is only jest  
T' make that place uz strong uz the rest."

Though only by the most extreme care in construction, and a timber inspection even more rigid than that used in the construction of air-planes could one guarantee a result like that reported by Holmes, for

Little of all we value here  
Wakes on the morn of its hundredth year  
Without both feeling and looking queer,  
In fact there is nothing that keeps its youth,  
So far as I know, but a tree and truth.

It is, then not surprising that at this age,

There are traces of age in the one-hoss shay,  
A general flavor of mild decay,  
But nothing local, as one may say.

or that the dramatic conclusion of the experiment occurs on this day.

All at once the horse stood still,  
Close by the meet'n'-house on the hill,  
First a shiver, and then a thrill,  
Then something decidedly like a spill,—  
And the parson was sitting upon a rock,  
At half past nine by the meet'n'-house clock,—  
Just the hour of the Earthquake shock!  
What do you think the parson found,  
When he got up and stared around?  
The poor old chaise in a heap or mound,  
As if it had been to the mill and ground!  
You see, of course, if you're not a dunce,  
How it went to pieces all at once,—  
All at once, and nothing first,—  
Just as bubbles do when they burst.

---

writer has ever seen in print is the "Young People's Arbor" conducted by James Lawler, Canadian Forestry Journal 11:201-202 (1915).

Oak undoubtedly for this use, *Quercus alba* L.

Lancewood, The West Indian *Oxandra virgata*, ("He sent for lance-wood.")

Ash, *Fraxinus americana* L.; White-wood, *Liriodendron Tulipifera* L.; Elm, *Ulmus americana* L.